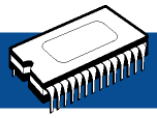
Firmware Release Notes  Extron Electronics

Current Firmware Revision: 1.18

The following notes provide known firmware issues and release history for the Extron SMX Multi Matrix Switchers 2U, 3U, 4U and 5U frames. For more information, please call your Extron Applications Engineer.

Updated:	March 14, 2013
Extron Products Affected:	SMX Multi Matrix Switchers (2U, 3U, 4U & 5U)
Firmware part number:	19-1964-50
Current Engineering Revision:	E26049
Current Firmware Revision Affected:	1.17
Current Firmware:	1.18

TECH NOTES

When updating the SMX Matrix switcher firmware version 1.18, the following procedures are necessary:

1. Save your switcher configuration first, using the SMX Matrix Switcher Windows Control Program, then restore and re-enter your IP settings. Refer to the SMX User's Manual.
2. Update the SMX firmware to v 1.17 or higher**.**
    a. Upload the new firmware using the SMX Matrix Switcher Windows Control Program, the Extron Firmware Loader program, or the SMX Matrix internal Web pages.
    b. Reset the SMX Matrix using the SIS command Esc ZQQQ via Telnet or RS-232.
    c. Verify that the SMX Matrix firmware was updated by issuing it the SIS command "Q" or "q".

Firmware version 1.16 was never released in shipping units.

USA: 800.633.9876 (inside US/Canada only) or 714.491.1500
Europe: +800.3987.6673 (inside Europe only) or +31.33.453.4040
Asia: +65.383.4400
Japan: +81.3.3511.7655

KNOWN ISSUES

The following is a list of known firmware issues found in the firmware Version 1.18

- **Occasional loss of HDCP communication during power cycle** – In rare cases after the matrix is power-cycled, some displays have been found to stop HDCP communication. This causes the SMX HDMI or DVI Pro boards to output a green screen when an HDCP-compliant signal is routed to the display.

  Workaround: Power cycle the display after the SMX has completely booted up**.**

- **Front Panel Control Issue when the webpage User Control tab is open** – It has been observed that when the internal webpage User Control tab is open, the front panel control buttons response differently. The I/O button lights flash slowly and some I/O buttons need to be pressed twice when making or viewing ties.

  Note that firmware 1.15 and other internal webpage tabs, such as Presets Control, Status, Configuration and File management, do not have this issue.

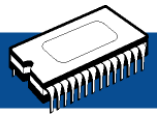
  Workaround: Close the internal webpage or go to a different tab when using front panel control.

FIRMWARE RELEASE HISTORY

The following is a list of issues found in Firmware Version 1.17 for SMX DVI Pro and SMX HDMI that are now resolved by Version 1.18.

- **Corrected false input detect (DSVP) issue for the SMX DVI boards–** In prior versions of firmware, SMX DVI boards have been found to falsely detect active inputs when some active (powered) DVI extension cables or powered fiber extenders are used for input signal connection. The input detects the active device connection but does not detect the active video signal accurately. This issue has been resolved in v1.18.

- **Corrected Audio Distortion Issue for SMX HDMI and DVI pro boards –** In prior versions of firmware, when using an onboard Intel Graphic 4000 card, audio signals would become distorted when an audio signal type is changed. This issue has been resolved in v1.18.

Firmware Release Notes  Extron Electronics

Current Firmware Revision: 1.17

The following notes provide known firmware issues and release history for the Extron SMX Multi Matrix Switchers 2U, 3U, 4U and 5U frames. For more information, please call your Extron Applications Engineer.

Updated:	June 19, 2012
Extron Products Affected:	SMX Multi Matrix Switchers (2U, 3U, 4U & 5U)
Firmware part number:	19-1964-50
Current Engineering Revision:	E25252
Current Firmware Revision Affected:	1.15
Current Firmware:	1.17

KNOWN ISSUES

The following is a list of known firmware issues found in the firmware Version 1.17

- **Occasional loss of HDCP communication during power cycle** – In rare cases after the matrix is power-cycled, some displays have been found to stop HDCP communication. This causes the SMX HDMI or DVI Pro boards to output a green screen when an HDCP-compliant signal is routed to the display.

  Workaround: Power cycle the display after the SMX has completely booted up**.**

- **Front Panel Control Issue when the webpage User Control tab is open** – It has been observed that when the internal webpage User Control tab is open, the front panel control buttons response differently. The I/O button lights flash slowly and some I/O buttons need to be pressed twice when making or viewing ties.

  Note that firmware 1.15 and other internal webpage tabs, such as Presets Control, Status, Configuration and File management, do not have this issue.

  Workaround: Close the internal webpage or go to a different tab when using front panel control.

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FIRMWARE RELEASE HISTORY

Firmware revision 1.17 provides support for updates to hardware that do not change the basic operation of the switchers.

The following new feature has been added to the Series:

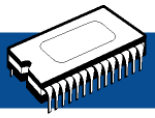
- **Added Input HDCP Authorized On/Off –** This new feature allows the user to turn off the HDCP authorization between the source and the matrix. When Input HDCP Authorization is OFF, the source will not encrypt content that does not require encryption; any material requiring encryption will not be delivered from the source unless Input HDCP Authorization is turned ON (default).

	ASCII	Unit response
HDCP *Authorized Device* On	Esc *E* x_{30}*x_{301}* 1 HDCP ←	x_{30} Hdcp *E* x_{301} * 1←
HDCP *Authorized Device* Off	Esc *E* x_{30}*x_{301}* 0 HDCP ←	x_{30} Hdcp *E* x_{301} * 0←
Query HDCP *Authorized* Device status	Esc*E*x_{30}*x_{301}HDCP←	x_{306} x_{30} Hdcp *E* x_{301}*x_{306}← (Verbose mode 2/3)

x_{30} = Slot #
x_{301} = input #
x_{306} = 1 (allow HDCP encryption) – Default.
= 0 (block HDCP encryption)

The following is a list of issues found in Firmware Version 1.15 for SMX DVI Pro and SMX HDMI that are now resolved by Version 1.17.

- **Corrected Audio Distortion Issue –** In prior versions of firmware, audio signals would become distorted when changing video resolution and/or audio signal format. This issue has been resolved in v1.17.

Firmware Release Notes  Extron Electronics

Current Firmware Revision: **1.15**

The following notes provide known firmware issues and release history for the Extron SMX Multi Matrix Switchers 2U, 3U, 4U and 5U frames. For more information, please call your Extron Applications Engineer.

Updated:	September 29, 2011
Extron Products Affected:	SMX Multi Matrix Switchers (2U, 3U, 4U & 5U)
Firmware part number:	19-1964-50
Current Engineering Revision:	E24311
Current Firmware Revision Affected:	1.13
Current Firmware:	1.15

TECH NOTES

Firmware Version – The SMX frame requires the use of firmware version 1.15 or higher for the SMX USB boards to be compatible with the SMX matrix switcher.

Installation of SMX USB boards into SMX frames with firmware version 1.15 or higher requires no additional initialization procedure.

When installing SMX USB boards into SMX frames with firmware version 1.13 or earlier, the following procedures are necessary:

3. Save your switcher configuration first, using the SMX Windows Control Program, then restore and re-enter your IP settings. Refer to the SMX User's Manual.
4. Update the SMX firmware to v 1.15 or higher prior to installing an SMX USB board.
    a. Upload the new firmware using the SMX Windows Control Program, the Extron Firmware Loader program, or the SMX Frame internal Web pages.
    b. Reset the SMX Frame using the SIS command Esc ZQQQ via Telnet or RS-232.
    c. Verify that the SMX Frame firmware was updated by issuing it the SIS command "Q" or "q".

Hardware Notes:

1. Due to current draw for USB port power, do not use more than one SMX USB matrix board per frame.
2. When planning USB topology, note that there are three USB Hubs in series within the SMX USB matrix boards. Per USB Spec, up to five USB hubs in a system can be in series.

KNOWN ISSUES

The following is a list of known firmware issues found in the firmware Version 1.15

- **Output Connection Status Updates** – If there are no ties created, the SMX USB will be unable to provide an updated connection status, for USB devices connected on the output ports, to the SMX internal Web page and Data Viewer. To ensure correct output connection status reporting, ties between inputs and outputs must exist.

- **Host Computer enumeration through USB extenders fails under certain conditions –** In some extreme use cases, a USB extender may fail to be enumerated by the host computer. Conditions

  1) The Host PC must be running a Windows XP operating system
  2) An I/O tie is made between one input and ALL FOUR outputs simultaneously
  3) All four outputs utilize a USB extender, connected to USB port A or B

  In this and similar use cases, the Host PC may randomly fail to enumerate one of the four connected USB extenders. Systems with three or fewer USB extenders work properly under all use cases.

  Workaround: Tie each output to the desired input one by one, with at least 5 seconds in between each tie.

- **Host Computer may not enumerate External Hard Drives connected to the output of SMX USB** – Some external hard drives have been found to exceed the USB port power specification of 2.5 watts (5V, 500 mA), drawing more current than allowed during start-up. This may cause the Host Computer to fail to enumerate the drive on the initial connection.

  Workaround: Disconnect and then reconnect the drive. This will allow the drive to be enumerated.

- **Occasional loss of HDCP communication during power cycle** – In rare cases after the matrix is power-cycled, some displays have been found to stop HDCP communication. This causes the SMX HDMI or DVI Pro boards to output a green screen when an HDCP-compliant signal is routed to the display.

  Workaround: Power cycle the display after the SMX has completely booted up**.**

- **Intermittent audio mute –** If an audio output is muted and its volume, input gain or attenuation is adjusted, the output will un-mute.

FIRMWARE RELEASE HISTORY

Engineering Revision Affected: E22452
Firmware Revision Affected: 1.13 and older
Date of Occurrence: Units shipped on or before June, 2010 with Firmware 1.13 and older through September, 2011

Firmware revision 1.15 provides support for updates to hardware that do not change the basic operation of the switchers.

The following new features have been added to the Series:

Command	ASCII Command (Host to Switcher)	Response (Switcher to Host)	Additional Description
Commands Specific to SMX USB Boards			
Port Emulation for Outputs			
Set port emulation for all outputs	Esc E X30 * X9 * USBC ←	X30 UsbcEØ * X9 ↵	Enable or disable port emulation for all outputs.
Set port emulation for output pairs	Esc E X30 * X3 * X9 USBC ←	X30 UsbcE X3 * X9 ↵	Enable or disable port emulation for output X3.
View port emulation status for outputs	Esc E X30 * X3 USBC ←	X9 ↵ X30 UsbcE X3 * X9 ↵	Verbose mode 2 and 3
View port emulation status for all outputs	Esc E X30 * USBC ←	X9¹ X9² X9³ ... X9ⁿ ↵ X30 UsbcE * X9¹ X9² ... X9ⁿ ↵	Verbose mode 2 and 3
Signal Status			
View input signal status	Esc I X30 * X1 USBC ←	X12 ↵ X30 UsbcI X1 * X12 ↵	Verbose mode 2 and 3
View all input signal status	Esc I X30 * USBC ←	X12¹ X12² X12³ ... X12ⁿ ↵ X30 UsbcI * X12¹ X12² X12³ ... X12ⁿ ↵	Verbose mode 2 and 3
View output signal status	Esc O X30 * X3 USBC ←	X20 ↵ X30 UsbcO X3 * X20 ↵	Verbose mode 2 and 3
View all output signal status	Esc O X30 * USBC ←	X20¹ X20² X20³ ... X20ⁿ ↵ X30 UsbcO * X20¹ X20² X20³ ... X20ⁿ ↵	Verbose mode 2 and 3

NOTES:		
	X1 = Input number	1 - <maximum number of inputs>
	X3 = Output number	1 - 4
	X9 = Emulation status	Ø = Off 1 = On
	X12 = Input connection status	Ø = Off 1 = On
	X20 = Output connection status	Ø = No active connection on A or B 1 = 1st (A) port is connected but the 2nd (B) port is not connected 2 = 1st (A) port is not connected but the 2nd (B) port is connected 3 = Active connection on both A and B
	X30 = Slot number	Ø1 - 1Ø Ø = Hard coded, representing all outputs

NOTE: Due to the power consumption of the USB board, it is recommended that only 1 USB board be used per SMX unit.

The following is a list of issues found in Firmware Version 1.13 that are now resolved by Version 1.15.

- **Corrected Cable Extender lock-up** – In the previous version of firmware, SMX HDMI or DVI Pro boards would stop switching when used with certain cable extenders. Cycling power on the SMX frame corrected this issue. This has been resolved in v1.15.

- **Corrected video hash marks** – Randomly, after a switch was made, there was horizontal hash in the video. Cycling power on the SMX frame corrected this issue. This has been resolved in v1.15.

- **Corrected black screen output when changing resolutions –** With SMX HDMI or DVI Pro boards, if there was a resolution change on one input, video from other inputs could stop showing. This has been resolved in v1.15.

- **Corrected random "infinite snow"** – In rare cases, SMX HDMI or DVI Pro boards were found to output snow indefinitely when an output was routed to a display. Cycling power on the SMX frame corrected this issue. This has been resolved in v1.15.

- **Corrected Green Screen output during boot-up –** After an SMX HDMI or DVI Pro board booted up, if a tie had not been previously made, the board would output a green screen when the user routed an HDCP-compliant signal to an HDCP-compliant display. The workaround for this issue was tie to an unused input first and then to the HDCP-compliant input. This has been resolved in v1.15.

- **Corrected video flashing at 59.94 Hz** –Video with a refresh rate of 59.94 Hz was found to flash consistently with SMX HDMI or DVI Pro boards. This has been resolved in v1.15.

- **Corrected random pixilated image -** Randomly, after a switch is made with SMX HDMI or DVI Pro boards, there would be a pixilated video output, or no video. Cycling power on the SMX frame corrected this issue. This has been resolved in v1.15.

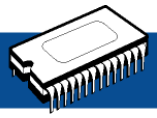
- **Corrected random audio distortion –** With SMX HDMI or DVI Pro boards, audio would become distorted after a switch was made. Cycling power on the SMX frame corrected this issue. This has been resolved in v1.15.

- **Corrected loss of signal when hot-swapping sources -** When using Extron DVI or HDMI extenders on the input of an SMX HDMI or DVI Pro board, hot swapping the source would cause the SMX to stop passing video. This has been resolved in v1.15.

- **Corrected EDID assignment when changing refresh rates or audio formats** – With SMX HDMI or DVI Pro boards and prior versions of firmware, when the user changed EDID for a particular resolution with stereo audio to the same resolution with multi-channel audio, or changed an EDID with a particular resolution at 50Hz to 60Hz refresh rate to a different refresh rate, the EDID assignment would not take. This has been resolved in v1.15.

- **Improved browser support for Mozilla, Google Chrome, and Apple Safari** – When using the SMX Frame's embedded webpage, some Web browsers would not properly display the webpage. This has been resolved in v1.15.

- **Updated 576p@50Hz, 720p@50Hz, and 1080p@50Hz EDID to include audio** – In the previous released firmware, 576p@50Hz, 720p@50Hz, and 1080p@50Hz EDID files did not include audio. In v1.15, these EDID have been updated to include support for 2-channel audio.

Firmware Release Notes  Extron Electronics

Current Firmware Revision: **1.13**

The following notes provide known firmware issues and release history for the Extron SMX Multi Matrix Switchers 2U, 3U, 4U and 5U frames. For more information, please call your Extron Applications Engineer.

Updated:	June 01, 2010
Extron Products Affected:	SMX Multi Matrix Switchers (2U, 3U, 4U & 5U)
Firmware part number:	19-1964-50
Current Engineering Revision:	E22452
Current Firmware Revision Affected:	1.11
Current Firmware:	1.13

TECH NOTES

- Firmware version 1.12 was never released in shipping units.

Important instructions regarding the installation of SMX DVI Pro and SMX HDMI boards:

Installation of SMX DVI Pro and SMX HDMI I/O boards into SMX frames with firmware version 1.13 or higher requires no additional initialization procedure.
When installing SMX DVI pro and SMX HDMI I/O boards into SMX frames with firmware version 1.11 or earlier, the following procedures are necessary:

1. **Update the SMX firmware to v 1.13 or higher** prior to installing an SMX DVI Pro or SMX HDMI matrix board.
2. If you installed and attempted to operate an SMX DVI Pro or SMX HDMI matrix board before uploading the new firmware:
   a. First, upload the new firmware.
   b. Then, reset the SMX unit using the SIS command Esc ZQQQ← via Telnet or RS-232.

      Note: Save your switcher configuration first, using the SMX Windows Control Program, then restore and re-enter your IP settings. Refer to the SMX User's Manual, Chapter 5.

      Resetting the SMX frame will restore the SMX to the default conditions, including the IP settings.

Any SMX DVI Pro or HDMI I/O boards delivered prior to June 2010 are not compatible with firmware version 1.13 or higher. If you have one or more of these matrix boards, please contact an Extron Applications Engineer for assistance

KNOWN FIRMWARE ISSUES

SMX HDMI and DVI Pro Boards:

- It is not recommended to change input EDID while system is running. This may cause noise, wrong color mode, flickers or no image on the display. Re-tying the input and output may correct this issue.

  Changes to EDID with these boards must be setup first before powering the source to prevent this from happening.

- SMX HDMI 88 and SMX DVI Pro 88 boards issue with Output 2.

  When you tie Input 2 to Output 2, Output 2 will randomly fail to switch. It doesn't matter what source and monitor connected to it.

  Output 2 will recover by Un-tying and re-tying Output 2.

FIRMWARE RELEASE HISTORY

Engineering Revision Affected: E21600
Firmware Revision Affected: 1.11 and older
Date of Occurrence: Units shipped on or before November 2009 with Firmware 1.11 and older through June, 2010

Firmware revision 1.13 provides support for updates to hardware that do not change the basic operation of the switchers.

The following new features have been added to the Series:

- **Added new feature for the SMX DVI Pro and SMX HDMI boards: HDCP Query SIS Commands.** Users will be able to determine if the sources and displays are HDCP compliant.

Description	Command	Response
View Input HDCP	Esc I X 30 * X 1 HDCP ←	X 18 ↵ X 30 Hdcp I X 1* X 18 ↵ (Verbose)
View Output HDCP	Esc O X 30 * X 3 HDCP ←	X 18 ↵ Hdcp O X 1* X 18 ↵ (Verbose)
View ALL Inputs HDCP	Esc I X 30 * HDCP ←	X 18 1 X 18 2 ... X 18 n ↵ X 30 Hdcp I X 18 1 X 18 2 _ X 18 n ↵ (Verbose)
View ALL Outputs HDCP	Esc O X 30 * HDCP ←	X 18 1 X 18 2 ..... X 18 n ↵ X 30 Hdcp O X 18 1 X 18 2 _ X 18 n ↵ (Verbose)

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X_1 = Input Selection – 1 to 8
X_3 = Output Selection – 1 to 8

X_{18} = (0) Source / Output connected but not HDCP compliant
(1) Source / Output connected is HDCP compliant
(2) No Source / Output connected

X_{30} = Slot number (1 - 10)

The following is a list of issues found in Firmware Version 1.11 that are now resolved by Version 1.13.

- **Corrected the blocky image issue with the SMX DVI Pro and HDMI boards**

  In prior versions of firmware, SMX HDMI and DVI Pro occasionally exhibited a blocky image or color mode issue depending on how the system was setup. Cycling power on the SMX frame corrected this issue. This has been resolved in v1.13.

- **Corrected the "Reconfig" issue when SMX DVI Pro or HDMI boards are combined with SMX HD-SDI board**

  In prior versions of firmware, the SMX switcher spit out a "Reconfig" message every few minutes when SMX DVI Pro or SMX HDMI boards were combined with SMX SDI / HD-SDI boards. The issue appeared on a fully loaded system. Functionality of the boards was not affected. This has been resolved in v1.13.

Current Firmware Revision: **1.11**

The following notes provide known firmware issues and release history for the Extron SMX Multi Matrix Switchers 2U, 3U, 4U and 5U frames. For more information, please call your Extron Applications Engineer.

Updated:	November 29, 2009
Extron Products Affected:	SMX Multi Matrix Switchers (2U, 3U, 4U & 5U)
Firmware part number:	19-1964-50
Current Engineering Revision:	E21600
Current Firmware Revision Affected:	1.08
Current Firmware:	1.11

TECH NOTES

Firmware versions 1.09 - 1.10 were never released in shipping units.

KNOWN FIRMWARE ISSUES

- SMX HDMI and DVI Pro may exhibit a blocky image or color mode issue depending on how the system is setup. Cycling power on the SMX frame will correct this issue.
- The SMX switcher spits out "Reconfig" message every few minutes when you combine SMX DVI Pro or SMX HDMI with SMX SDI / HD-SDI board. The issue appears on a fully loaded system. Functionality of the boards are not affected.

FIRMWARE RELEASE HISTORY

Engineering Revision Affected: E21544
Firmware Revision Affected: 1.08 and older
Date of Occurrence: Units shipped on or before February 2009 with Firmware 1.08 and older through November, 2009

Firmware revision 1.11 provides support for updates to hardware that do not change the basic operation of the switchers.

The following new features have been added to the Series:

- **Added support for new SMX Matrix 2U configurations and SMX DVI Pro and HDMI boards (with limited features).**

Switcher description	Part #
SMX 2U Frames	60-1021-XX
SMX DVI Pro boards	70-598-XX
SMX HDMI boards	70-773-XX

- **Added new feature for the SMX DVI Pro and HDMI boards. Audio breakaway is available with these boards as long as they have the same audio format.**

The following is a list of issues found in Firmware Version 1.08 that are now resolved by Version 1.11.

- **Corrected the SMX SDI / HD-SDI 44 board configuration setting.**

  The SMX SDI/HD-SDI 44 board will not work properly unless you set it as an SMX SDI / HD-SDI 84 board.

- **Corrected the SMX DVI board video issue when you cycle the power of the matrix switcher.**

  The SMX DVI boards (non pro) intermittently exhibit noise on some or all outputs when you cycle the power of the matrix switcher.

- **Corrected the SMX DVI boards and RGB-DVI 300 compatibility issue.**

  SMX System with SMX DVI board and RGB-DVI 300 combination exhibits noise.

- **Corrected the SMX Sync boards response when the SIS the follow-all (!) tie command is used.**

  When sending a follow-all tie command for example 1*2*1!, the response is 01Out02 In00 All. It always response with In00. The correct response should be 01Out02 In01 All.